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Stable Ischemic Heart Disease

COMPARATIVE SAFETY AND EFFICACY EVALUATION OF IVABRADINE, METOPROLOL AND ITS COMBINATION IN MANAGEMENT OF INAPPROPRIATE SINUS TACHYCARDIA IN CORONARY ARTERY BYPASS GRAFT PATIENTS

Poster Contributions
Hall C
Saturday, March 29, 2014, 3:45 p.m.-4:30 p.m.

Session Title: Old and Novel Therapies for Ischemic Heart Disease
Abstract Category: 26. Stable Ischemic Heart Disease: Therapy
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Background: Post-Operative Inappropriate Sinus Tachycardia (IST) is common After Coronary Artery Bypass Graft (CABG) surgery requiring treatment to reduce heart rate (HR). If untreated, increases incidence of complications including post-operative stroke.

Methods: A total of 151 patients undergoing CABG surgery at a tertiary care center in Western India from 10/2012 - 3/2013, who developed post-CABG IST, were divided as per cardiac surgeons discretion into 5 treatment groups for IST: Metoprolol 12.5 mg bid (n=47); Metoprolol 25 mg bid (n=24); Ivabradine 5 mg + Metoprolol 12.5 mg (bid,n=34); Ivabradine 5 mg + Metoprolol 25 mg (bid,n=23); and Ivabradine 5 mg bid (n=23). Safety and Efficacy were compared.

Results: Of the 151 patients (Mean age 59 ± 8 years, Male 87%), 41% had diabetes, 45% had hypertension and 67% had triple vessel disease. Mean pre-operative vitals were: HR 80, BP 125/78 mm Hg; respiratory rate 21/min and temperature 98.4 °F. "Off pump" CABG was done in 98% patients. During surgery, nor adrenaline was used in 87% patients, dobutamine in 2% patients and both in 11% patients. Mean intra-operative fluid balance was 988 ml. Average ICU and total hospital stay were 3.7 and 7.3 days respectively. IST developed post-CABG, averaging a 32% increase from baseline HR. HR was reduced similarly(p>0.05) in all treatment groups.

Conclusions: Metoprolol, Ivabradine and its combination equally and effectively controlled IST in CABG patients without inducing hypotension or arrhythmia.

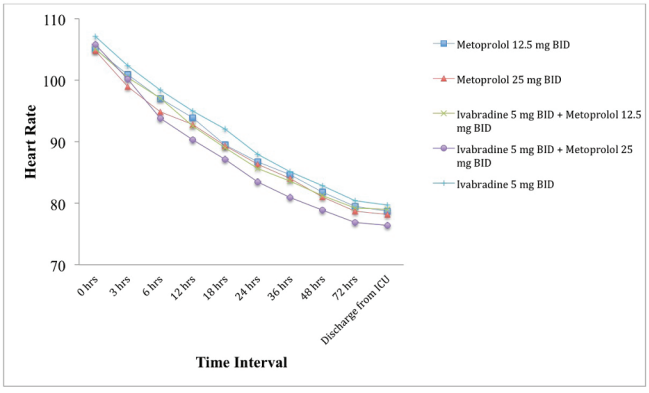

Figure: Heart Rate Response over Time.